

The Claims

Claims 1-43. (Canceled).

44. (Previously presented) A system comprising:
- a first module implemented in kernel-mode and coupled to receive audio data from hardware, wherein the first module is to process the audio data by obtaining a data packet structure into which the audio data can be placed, wherein the data packet structure includes:
- a data portion that can include one of: the audio data, a pointer to a chain of additional data packet structures that include the audio data, and a pointer to a data buffer, and
 - an event byte count portion that identifies, if the data portion does not include the pointer to the chain of additional data packet structures, whether the data portion includes the audio data or a pointer to the data buffer;
- a second module implemented in kernel mode and coupled to communicate processed audio data to an application executing in user-mode; and
- a third module, implemented in kernel-mode, to receive the audio data from the first module, process the audio data, and communicate the processed audio data to the second module.

45. (Original) A system as recited in claim 44, wherein the first module is further to process the audio data before forwarding the audio data to the second module.

46. (Canceled).

47. (Original) A system as recited in claim 44, further comprising additional modules, situated between the first and third modules, to further process the audio data.

48. (Previously presented) One or more computer-readable media having stored thereon a series of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform acts including:

maintaining a pool of memory available for allocation to a plurality of transform filters executing at a privileged level;

allocating a portion of the pool of memory to one of the plurality of transform filters to use to store audio data, wherein the portion comprises sufficient memory to store a data structure including:

a data portion that can include one of: audio data, a pointer to a chain of additional data structures that include the audio data, and a pointer to a data buffer;

a structure byte count portion that identifies the size of the data structure;

a channel group portion that identifies which of a plurality of channel groups the data identified in the data portion corresponds to;

a presentation time portion indicating when audio data is to be rendered;

a flag portion indicating whether the data portion includes either the pointer to the chain of additional data structures or one of either the audio data or the pointer to the data buffer; and

an event byte count portion that identifies, if the data portion does not include the pointer to the chain of additional data structures, whether the data portion includes the audio data or a pointer to the data buffer; and

returning the allocated portion to the pool of memory after the plurality of transform filters have finished processing the audio data.

49. (Original) One or more computer-readable media as recited in claim 48, wherein the privileged level comprises kernel-mode.

50. (Canceled).

51. (Original) One or more computer-readable media as recited in claim 48, wherein the portion comprises a data buffer to store a plurality of audio data messages.

52. (Original) One or more computer-readable media as recited in claim 48, wherein the series of instructions, when executed, further cause the one or more processors to perform acts including requesting additional memory, from a memory manager, to add to the pool of memory.

53. (Original) One or more computer-readable media as recited in claim 52, wherein the series of instructions, when executed, further cause the one or more processors to perform acts including requesting additional non-paged memory from the memory manager to add to the pool of memory.

Claims 54-69. (Canceled).